

CROW INDIAN TRIBE



Resources Report

AIR QUALITY

Regulatory Background

The basic regulatory framework of the Clean Air Act of 1977 involves National Ambient Air Quality Standards (NAAQS) and allowable increments for the prevention of significant deterioration (PSD) of air quality. NAAQS are absolute, nationwide limits on the amount of certain pollutants that may be present in the air. No part of the country may exceed these levels. The federal government has set primary standards to protect public health and secondary standards to protect the general public welfare. The state of Montana has set its own ambient standards for the same pollutants, which are at least as stringent as the federal standards (BLM 1984).

The PSD program is designed to protect the air quality from significant deterioration in areas already meeting the NAAQS. In other words, in cleaner areas a specific increase, or “increment,” in pollution is allowed above the existing air quality “baseline” pollution levels. In no event, however, may pollution increases exceed the NAAQS.

The size of the increment allowable under the PSD program depends on the area’s designation as a Class I, II, or III area, with Class I areas allowed the smallest pollution increment and Class III the largest. In the Clean Air Act of 1977, the Congress designated certain national parks and other such areas as Class I areas. All other areas were designated as Class II. However, Congress provided a procedure for state and tribal governments to redesignate areas under their jurisdictions Class II or III. Montana’s PSD standards are identical to the federal standards (BLM 1984). The Crow Reservation is classified as a PSD Class II area while the Northern Cheyenne Reservation is classified as a PSD Class I area.

In 1978, the Crow Tribe decided that the Crow Reservation should remain in PSD Class II status, although the Northern Cheyenne had redesigned their Reservation as Class I. Also at that time, a Crow Tribe Air Quality Commission was created, composed of five members who were elected from the floor of the council (BIA memorandum 1978).

The Crow Tribe’s Law and Order Code, Section 11 deals with Air Quality. Current emissions regulations and ambient air quality standards from Section 11 are presented below:

Fuel Combustion - Particulate Matter		
10^6 BTU/hr. ⁽¹⁾	# Particulate/ 10^6 BTU ⁽²⁾	
<u>Fuel Heat Input</u>	<u>Existing Source</u>	<u>New Source</u>
10	0.6	0.6
100	0.4	0.35
1,000	0.28	0.20
10,000	0.19	0.12

Fuel Combustion - Sulfur Compounds

<u>Effective Date</u>	<u>Pollutant</u>	<u>Allowable Emissions</u>
July 1 1975	SO ₂	1.0 #s/10 ⁶ BTU
July 1 1975	H ₂ S	50 grains/100 ft ³

Visible Emissions

Existing Source	40 percent opacity
New Source (2)	20 percent opacity

(1) Interpolate between values

(2) After November 23 1968

At the time of this writing, the Tribe is in the process of developing and rewriting its codes and standards for both air and water pollution.

Information in the Statewide Draft Oil and Gas EIS

Chapter 3 of the Statewide Draft Oil and Gas EIS presents a table listing the regulated air pollutants, the Montana and federal air quality standards, and the allowed increment values. For comparison, it also presents the assumed background concentration of each pollutant.

Hourly background concentrations of some pollutants were not available, but the data that was presented showed that over the averaging times used, for the years 1998-2000, background concentrations measured in the areas indicated were below regulatory standards. The carbon monoxide and sulfur dioxide data were collected in Billings, MT; the nitrogen dioxide, and particulates data were collected in Rosebud County, MT; and the ozone data were collected in Flathead County, Montana. Since most monitoring data were collected in urban or industrial areas, it is implied that the background concentrations presented are likely biased high.

Although accuracy of the background data presented could not be verified, the air quality information on effected environment presented in Chapter 3 appears to be adequate. However, site-specific studies should be performed prior to commencing any coal production/development on the Crow Reservation to ensure impacts to air quality will be acceptable.